

PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Process for Covering an Article with a Metal Foil Wrapper

I, JEAN DURAND, of 9 avenue de l'Industrie Argentan (Orne), France, of French nationality, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a process for covering articles with a metal foil wrapper and in particular to a process of covering articles which are to be stored in a humid environment.

Wrappers for covering articles such as butter usually comprise a metal foil, such as an aluminium foil, or a composite sheet made by sticking a sheet of metal foil on each face of a thin sheet of paper. The wrapper is folded around the article so as to retain its shape without the necessity of glueing, as known glues would lose their adhesive powers, in the humid environment developed, for example, by the butter.

The present invention uses an adhesive composition which will retain its adhesive power in a humid environment, thereby overcoming the above disadvantages.

The invention consists in a process for covering an article with a metal foil wrapper comprising coating portions of the wrapper with a composition which is able to acquire and retain adhesive power in a humid environment, allowing the composition to dry on the wrapper, folding the wrapper around the article so that the coated portions of the wrapper overlap portions of the wrapper and allowing the covered article to remain in a humid environment.

The invention further consists in butter covered by the said process.

The adhesive composition preferably comprises tannic acid in a volatile solvent and the wrappers, previously coated with tannic

acid in appropriate areas, can be stored in piles without any trouble in normal hydro-metric atmosphere. The wrappers can be fed through any standard wrapping machine, for example machines for wrapping pats of butter.

Conveniently, the article to be covered is able to cause humidity in the environment of the wrapper. For example, when a pat of butter has been wrapped by the process of the invention, the moisture present in the butter tends to diffuse towards the wrapper and the coated portions of the wrapper gradually become adhesive so that after several days of storage the wrapper is sealed.

Pure tannic acid in the dry state has a mechanical fragmentation characteristic which is reflected in great friability of the product when it is spread out to form a thin layer. The consequence of this is that in spite of any precautions in handling which may be taken, the adhesive coating layer can fragment before the shaping of the wrapping, and separate from the base on which it has been applied.

In accordance with another embodiment of the invention, which aims at overcoming this disadvantage entirely, polyvinyl ether is added to the pure tannic acid, preferably in an amount between 1 and 20 per cent by weight of the tannic acid.

This latter product which, like the tannic acid, has no nonuous effect from the view point of food consumption, in the pure state has the form of a thick paste of sticky consistency possessing the property of being able to absorb a certain quantity of water while conserving this consistency.

Experience has shown that when such polyvinyl ether is incorporated in a small amount with the tannic acid it confers on this a pliable character which suffices to remove

from it all friability; the composite layer thus constituted is not, however, at all sticky or adhesive in ordinary hydrometric atmosphere.

- 5 In a preferred embodiment of the invention the adhesive composition has the following composition, given by way of example only:

Pure tannic acid (dry extract) 40 gr

Poly vinyl ether 2 gr

10 Ethyl alcohol 95% 58 gr

The above adhesive substance drives very rapidly, which enables it to be used for wrappers in any type of machine and at great speed.

- 15 The invention will now be further described with reference to the attached drawing, in which 1 designates a wrapper comprising a sheet of paper on both surfaces of which is stuck a sheet of aluminium foil. This wrapper is coated on the areas 2 with an adhesive composition as defined above.

The areas are determined in such a way that when the packet is made up the wrapping is hermetically sealed.

- 25 The wrappers coated in this way, may be used in the same machines and in the same way as the standard wrappers, not coated with adhesive, and in practice obviously give the very great advantage that on one and 30 the same wrapping machine and without any modification thereto, it is possible to alternate a wrapping operation using adhesive sheets and a standard wrapping operation.

- 35 As has been stated above, the adhesive character develops subsequently to the wrapping operation and in such a way that at the end

of a period of time each packet is found to be completely sealed.

WHAT I CLAIM IS:—

1. A process for covering an article with a metal foil wrapper comprising coating portions of the wrapper with a composition which is able to acquire and retain adhesive power in a humid environment, allowing the composition to dry on the wrapper, folding the wrapper around the article so that the coated portions of the wrapper overlap portions of the wrapper and allowing the covered article to remain in a humid environment. 40
2. A process as claimed in claim 1, wherein the article to be covered is able to cause humidity in the environment of the wrapper. 45
3. A process as claimed in claim 1 or 2 wherein the composition comprises a solution of tannic acid in a volatile solvent. 50
4. A process as claimed in claim 3 wherein the composition also comprises polyvinyl ether. 55
5. A process as claimed in claim 4 wherein the proportion of polyvinyl ether in the composition is between 1 and 20 per cent by weight of the tannic acid. 60
6. A process as claimed in claim 5 wherein the composition comprises 40% by weight pure tannic acid, 2% by weight poly vinyl ether and 58% by weight 95% ethyl alcohol. 65
7. Butter when covered by a process claimed in any of claims 1 to 6.

MARKS & CLERK

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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of
the Original on a reduced scale*

